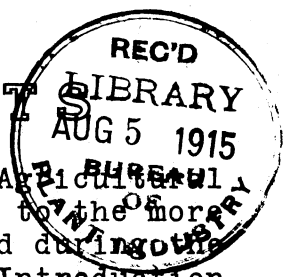


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PLANT IMMIGRANTS



Descriptive notes furnished mainly by Agricultural Explorers and Foreign Correspondents relative to the more important introduced plants which have arrived during the month at the Office of Foreign Seed and Plant Introduction of the Bureau of Plant Industry of the Department of Agriculture. These descriptions are revised and published later in the Inventory of Plants Imported.

No. 107.

March 1915.

Genera Represented in This Number.

Amygdalus	40001-005	Polygonum	40034
Castanea	40035-036	Prunus	40012-015
Cephalotaxus	40017-018		40067
Diospyros	40024	Pyrus	40019
Garcinia	40103	Schizandra	40025
Grevillea	40041-046	Stylidium	40032
Hakea	40047-053	Telopea	40064
Osteomeles	40033	Trachycarpus	40029

Plates:

- The Pekin Pear or Pai li.
- Dated Stems of the Edible Bamboo.
- A Collection of Nuts and Dried Fruits Presented by the Ameer of Afghanistan.
- A Group of African Oil Palms in Bahia.

Applications for material listed in these multigraphed sheets may be made at any time to this Office. As they are received they are placed on file, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it, as well as to others selected because of their special fitness to experiment with the particular plants imported. Do not wait for the Autumn Catalogue.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.

Permission to publish on application only.

Amygdalus sp. (Amygdalaceae.) 40001-40005. Seeds of wild peaches from Shensi and Kansu, China. 40001. "Wild peaches having larger fruits than the ordinary wild ones, said to come from near Tze Wu, to the south of Sianfu, but some also probably collected from trees in gardens which were raised from wild seeds. When seen wild this peach generally assumes a low bush form of spreading habit; when planted in gardens and attended to, it grows up into a small tree, reaching a height of 12 to 20 feet, with a smooth trunk of dark mahogany-brown color. The leaves are always much smaller and more slender than in cultivated varieties, while their color is much darker green. They seem to be somewhat less subject to various diseases than the cultivated sorts and they are most prolific bearers, although the fruit is of very little value on account of its smallness and lack of flavor. In gardens around Sianfu this wild peach is utilized as a stock for improved varieties. It is also grown as an ornamental; said to be literally covered in spring with multitudes of shell-pink flowers." 40002. "Wild peaches, occurring in the foothills of the higher mountains at Tsing Ling Kang, Shensi, at altitudes from 2000 to 5000 feet, generally found at the edges of loess cliffs and on rocky slopes. There is a great deal of variation to be observed as regards size and shape of leaves, density of foliage and general habits." 40003. "Wild peaches found on a mountain side, near Pai dja dien, Shensi, at an elevation of 4000 feet; these small trees and bushes had borne such a heavy crop that the ground beneath them was covered with a layer, a few inches thick, of the small, yellowish, hairy fruits. The local inhabitants didn't consider them worth collecting even, and they were rotting and drying up." 40004. "Wild peaches occurring as tall shrubs in loess cliffs, at the Tibetan frontier, Kagoba, Kansu, at elevations of 6000-8000 feet. Save for some children who eat these wild peaches, they are otherwise considered worthless wild fruit. Local name *Yeh t'ao*, meaning 'wild peach', and *Mao t'ao*, meaning 'hairy peach.'" 40005. "Wild peaches found on stony mountain slopes in a wild, very sparsely populated country, near Kwa tsa, on Siku River, Kansu. No fruit trees whatsoever are cultivated by the local settlers in the mountains, and the way some of these peach bushes grow excludes them from ever having been brought there by any man or even any quadruped; only birds might have transported them." (Meyer's introductions.)

Castanea spp. (Fagaceae.) 40035-036. Seeds of chestnuts from Hui hsien, and Cheng hsien, Kansu, China. "A species

of chestnut of medium tall growth; trunk more slender, and bark smoother, than in *C. mollissima*, while the leaves, burrs and nuts are smaller. Loves apparently shady situations and damp soil. Of value as a nut-bearing tree, especially for the southeast United States. Where these chestnuts grow in gardens one also finds some of the following trees, showing how mild the climate is: *Ligustrum lucidum*, *Chamaerops excelsa*, *Hovenia dulcis*, *Diospyros kaki*, *Punica granatum*, *Phyllostachys bambusoides* (*P. quilioides*), etc." (Meyer's introductions and descriptions.)

Cephalotaxus sp. (Taxaceae.) 40017-018. Seeds from near Kwan yin tang, Shensi, and from near Kwa tsa, Kansu. "An evergreen conifer, growing into a tall shrub or rarely into a gnarled small tree. Resembles in general habit *Cephalotaxus fortunei*, but of denser, less open growth, especially beautiful when young, or two or three years after it has been cut to the ground; for this plant throws up sets of new shoots more compact in growth than the original stems. It withstands a great amount of shade and thrives even among boulders and stony debris. Of value as an ornamental evergreen, especially for shady places, for those parts of the United States where the winters are not too severe. Collected at an elevation of 4000 feet (and 40018 at 5000 feet). Locally this shrub is called *Sui pei shu*, meaning 'water conifer.' Its seeds are collected by the people and eaten boiled, apparently to remove a poisonous principle. They are rich in oil, but taste bitterish even after having been boiled." (Meyer's introductions and descriptions.)

Diospyros lotus L. (Ebenaceae.) 40024. Seeds of a persimmon from Sikü, Kansu, China. "A variety of *Ghoorma* persimmon, with much larger fruits than the ordinary sort; shape also different, being flattened-globose; color yellow, changing later on to blackish. Taste much like a *kaki*, making one think that *D. lotus* possibly could be developed into a promising fruit-bearing tree fit especially for mild-wintered and semi-arid regions." (Meyer's introduction and description.)

Garcinia tinctoria (DC.) W. F. Wight. (Clusiaceae.) 40103. Seeds from Ootacamund, India. Presented by Mr. F. H. Butcher, Curator, Botanic Garden and Parks. "A symmetrical cone-shaped bushy tree, growing to 25 or 30 feet high, native of South India and Malaya. It bears large leathery leaves, 12-16 inches long, and two and one-half to three and one-half inches in width. The handsome yellow fruit produced in great abundance in December and January, is of

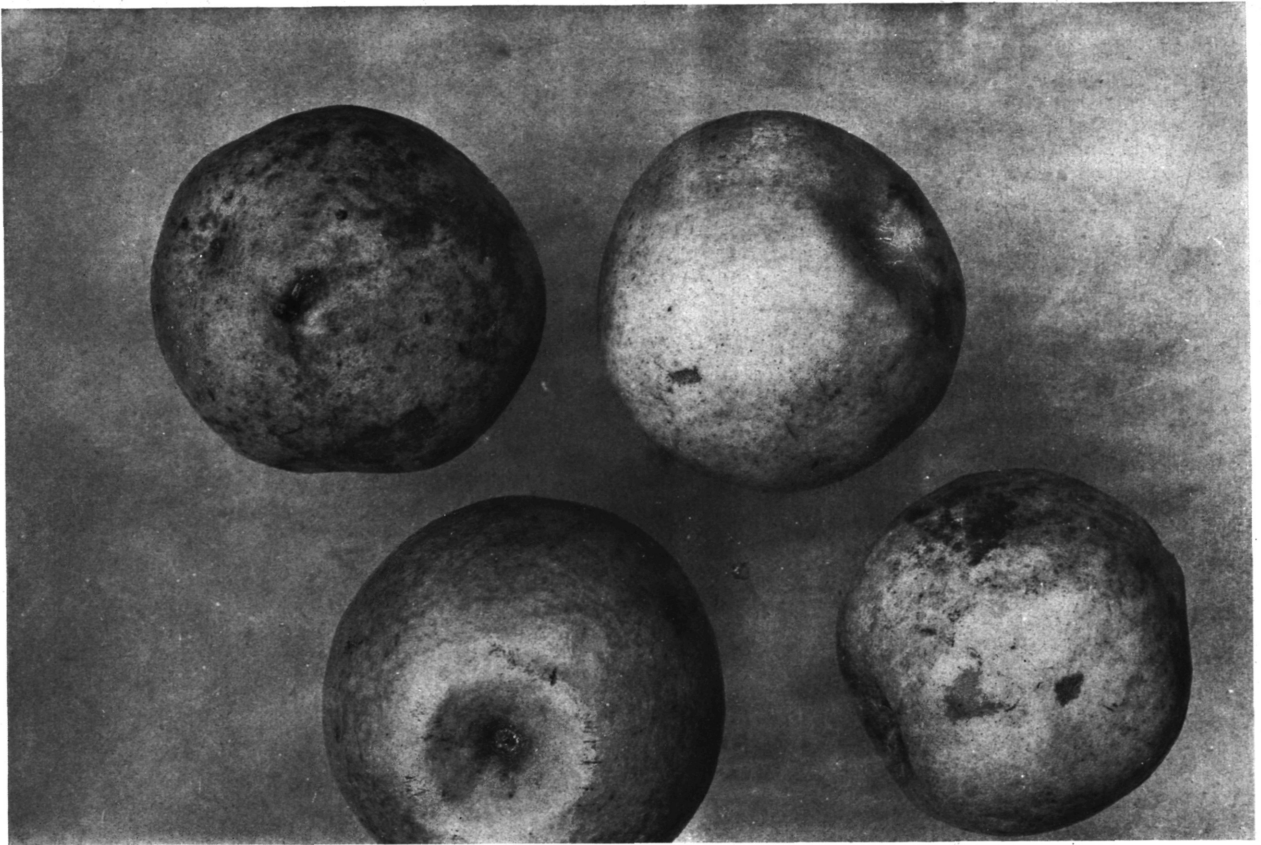
the form and size of a small orange, usually with a pointed projection at the end, the thin tender skin being smooth and polished. The yellow juicy pulp is of an acid but refreshing taste. The tree is propagated by the large seeds, and thrives up to about 3000 feet or more." (Macmillan, Handbook of Tropical Gardening and Planting.)

Grevillea spp. (Proteaceae.) 40041-046. Seeds of six varieties and species of ornamental shrubs and trees with white or red flowers in racemes, from Sydney, New South Wales. Presented by Mr. J. H. Maiden, Director of the Botanic Gardens. Among the species represented are *G. caleyii*, *G. hilliana*, *G. laurifolia*, *G. triternata* and two varieties of *G. banksii*. *G. robusta* has succeeded so well in Florida as a street and lawn tree and as a florists' plant that other species should receive careful cultivation also.

Hakea spp. (Proteaceae.) 40047-053. Seven species from Sydney, New South Wales. Presented by Mr. J. H. Maiden, Director of the Botanic Garden. A considerable number of species of this genus are used for outdoor planting in California, especially where shrubs are desired to stand hard usage, such as around railway stations, etc.

Osteomeles schwerinae Schneider. (Malaceae.) 40033. Seeds from Kwa tsa, Kansu, China. "A very dense-growing shrub, from two to five feet tall, having small, dark-green, finely pinnate leaves. Found on dry stony wastes and in rock cliffs. Bears small bluish-black berries in the late fall of the year and said to bloom profusely in early summer with conspicuous white flowers. Of value as a shrub for rockeries and as a lining bush along pathways running irregularly." (F. N. Meyer's introduction and description.)

Polygonum sp. (Polygonaceae.) 40034. Seeds from T'ung T'ung, Kansu, China. "A Polygonum of slender woody growth, a vine, found on open places here and there, covering often whole blocks of scrub or rocky cliffs with its masses of snowy white flowers, which appear in late summer and are produced in the greatest profusion. Foliage relatively small and resembling leaves of buckwheat. Able apparently to withstand much drought and adverse conditions. Of decided value as a porch, arbor, pergola and trellis vine for the greater part of the United States. Collected at an elevation of 5000 feet." (F. N. Meyer's introduction and description.)



The Pekin Pear or Pai li (White Pear).

Both the Keiffer and LeConte varieties of pear which are extensively grown in America have shown a fair degree of immunity to the pear blight, a very destructive bacterial disease. These varieties are believed to be crosses between varieties of the Chinese pear (*Pyrus chinensis*) and the European pear (*Pyrus communis*). Unfortunately, neither the Keiffer nor the LeConte is of high quality, having inherited a certain coarseness from the Chinese parent. The introduction of the *Pai li* or white pear of Pekin, considered the finest variety in North China, will probably interest the pear breeders and may lead to the production of better flavored blight-resistant pears. Photo No. 13030 by Frank N. Meyer, Oct. 18, 1913, Pekin, China.



DATED STEMS OF THE EDIBLE BAMBOO.

In Japan the edible bamboo (*Phyllostachys mitis*), is grown in large groves and the young shoots are marketed as asparagus is sold in America. The stems are dated in ink with the character for the year of their birth, and four years later they are cut for timber. Small groves of this species are now established in Louisiana. Photo No. 1644 by David Fairchild, Kyoto, Japan, 1902.

Prunus armeniaca L. (Amygdalaceae.) 40012-013. Seeds of wild apricots, from near Lan Tsai, and Kwa Tsa, Kansu, China. "Wild apricots occur very commonly in the mountains at altitudes from 5000 to 9000 feet. The natives collect the stones, crack them, take the kernels out and eat them, after having boiled them. They still taste bitter, however. Of use possibly in extending apricot culture farther north; also as stocks for stone fruits in semi-arid regions and as hardy spring-flowering park trees for the cooler parts of the United States." (F. N. Meyer's introductions and descriptions.)

Prunus spp. (Amygdalaceae.) 40014-015. Seeds of wild plums from near Kwan yin tang, Shensi, and Kageba, China. 40014, "a wild plum, found on somewhat stony mountain slopes at elevations between 4000 and 5000 feet. Grows up into a tall bush, densely branched, and often spiny on the young shoots. Fruits the size of a large marble, of yellowish green color, flavor very spicy, although sour near the skin and the stone. Of value possibly to supply compotes and for breeding purposes." 40015, "a wild plum growing into a tall bush or even a small tree, found on sloping stretches of loess land at the foot of mountains near the Tibetan frontier at elevations of from 6000-8000 feet." (F. N. Meyer's introductions and descriptions.)

Pyrus sp. (Malaceae.) 40019. Seeds of a wild pear from near Tchen ya tan, Kansu, China. "A species of wild pear, growing to be a large tree, with a wide-spreading, dense head of branches. Bark of dark color and in the main trunk even blackish and deeply furrowed in old specimens. Young branches often fiercely spiny and especially so in suckers. Leaves small and with much shorter petioles than in *Pyrus chinensis*. Fruits globose, flattened. Calyx persistent, peduncle generally short; much variation exists as regards size, but the fruits of this species of pear are generally small; the flesh is also acrid and often quite hard, though some of the larger ones are edible after having been frozen. This pear is not found in the warm valleys, but it thrives best at elevations of about 8000 feet, in company with such hardy trees and shrubs as *Picea obovata*, *Populus tremula*, *Malus baccata*, *Hippophae rhamnoides*, *Syringa amurensis*, *Rhamnus dahurica*, *Sorbaria sorbifolia*, and others. This pear has apparently given rise to some locally cultivated forms bearing small, sour fruits, which are juicy, however, and melting, and not hard and gritty like the poorer strains of *P. chinensis*. Of undoubted value as a stock for pears in cold sections and as a factor in breeding experiments in trying to extend successful pear

culture farther northward." (F. N. Meyer's introduction and description.)

Schizandra chinensis (Turcz.) Baillon. (Magnoliaceae.) 40025. Seeds from Paoki, Shensi, China. "A perennial woody vine of slender growth, found in between tall scrub on shady places; foliage not unlike that of *Actinidia kolumbica*, but somewhat thinner and with red petioles. The carmine-red berries are borne in small spikes on fleshy stalks and they hang down gracefully; these berries are the size of currants; they possess a sub-acid, spicy, aromatic taste, but this last is somewhat too pronounced to make it acceptable right away to the majority of Caucasian people. The Chinese eat them much and claim they purify the blood and dislodge waste matter from the body. By selection better varieties could be obtained, no doubt, which might prove to be quite acceptable to the western palate. This vine deserves to be experimented with for the following purposes: as an ornamental cover vine for shady places, as a possible new fruiting vine to be grown on trellises on northern exposures, and as medicinal plant having apparently some value as a blood cleanser. Chinese name *Wu wei tzu*, meaning 'fruit of five tastes.'" (F. N. Meyer's introduction and description.)

Stylidium sp. (Cornaceae.) 40032. Seeds from near Yuyin chen, Kansu, China. "A shrub or small tree, bearing leaves of many forms, some being very large and of lopsided, elliptical shape, while others have five points and are small, resembling leaves of *Liquidambar styraciflua*. Found in somewhat damp places at the foot of embankments or along streams. Of value as a striking looking garden and park shrub for mild-wintered regions." (F. N. Meyer's introduction and description.)

Telopea speciosissima (Smith) R. Brown. (Proteaceae.) 40064. Seeds of the waratah from the Botanic Gardens, Sydney, New South Wales. Presented by the Director, Mr. J. H. Maiden. "Although this beautiful and very uncommon evergreen shrub was introduced from the Blue Mountains of New South Wales as long ago as 1789, it has very rarely been seen in flower in England. The deep crimson, tubular flowers are about one inch long, and are borne in a dense globular head surrounded by an involucre of ovate-lanceolate blood-red bracts, each measuring from two to three inches in length. The firm leathery leaves are cuneate-oblong in shape, and measure about 6 inches long by one and one-half inch broad. They are toothed in the upper part, and are



A Collection of Nuts and Dried Fruits Presented
by the Ameer of Afghanistan.

His Majesty, Habibullah Khán, sent the above collection through his special representative, Mr. A. C. Jewett, who brought it as baggage and delivered it in person to the Department. For each sample he had prepared special lithographed labels, giving the correct name of the fruit and the locality from which it came. As the winters in Kabul, the capital of Afghanistan, are bleak, cold and dry, the fruits grown there should prove hardy in our Middle States. Among the most interesting of the collection are the excellent apricots, raisins, *Elaeagnus* fruits, and dried white mulberries. The latter form almost the exclusive food of hundreds of thousands of Afghans for many months of the year. This use of dried mulberries suggests a new tree food crop. Analyses of these dried mulberries show their high food values.



Group of African Oil Palms in Bahia.

The Oil or Dende Palm as it is called in Southern Brazil is believed to have been introduced from Africa in the early days of the slave trade and it has become perfectly acclimatized there. In West Africa its nuts which are borne in large crowded bunches form an important article of export, special steamship lines having been organized to carry them to Hamburg. In Brazil the oil is used extensively for table purposes quite as we use olive oil. Photo No. 15408 taken Dec. 26, 1913, by Dorsett, Shamel and Popenoe at Bahia, Brazil.

dark green above and paler below." (Proc. Royal Hort. Soc., vo l. 40, p. cx xx, 19 15).

Trachycarpus excelsus (Thunb.) Wendl. (Phoenicaceae.) 40029. Seeds of a palm from Huihsien, Kansu, China. "The Chinese fan or coir palm, cultivated in gardens in south Shensi and south Kansu as an ornamental tree, reaching a height of thirty to forty feet. Withstands successfully winter temperatures, unprotected, of -12° C. ($+11^{\circ}$ F.), as happened in Huihsien on November 1, 1895, when all the other palms around there died. Of value as a fine ornamental garden and park tree for all such parts of the United States where the mercury does not go much below 10° F. Chinese name *Tsung shu*, meaning 'coir palm tree.' Obtained from the garden of the Belgian Roman Catholic missionaries." (F. N. Meyer's introduction and description.)

NOTES FROM CORRESPONDENTS ABROAD.

Peru. Ollantaytambo. Mr. O. F. Cook writes, May 6, 1915. "We took a good look at the alpine crops two weeks ago, but decided that none would be suited for turning loose in quantity without previous handling by us, except possibly the quinoa, which may turn out to be really desirable. But that is a seed crop and can be handled easily. It is being harvested now and will be ready by the time we go home. Another kind of *Chenopodium* and an *Amaranthus* are also cultivated as seed crops. The very extensive use of the broad bean as a high altitude crop leads me to repeat what I have said so many times, that we should know much more than we do about this and the chick pea. The later is not important here and does not go nearly as high.

"The climate here at 9000 feet is very salubrious and we are feeling very well. As a place to study primitive agriculture and the remains of the ancient system, no better location could be imagined. After all that has been said by Markham and others the nature and extent of the ancient agriculture is still very little appreciated. Some features, at least, we shall be able to present if our pictures come out well.

"As yet we have not been down into the eastern tropical valleys, though we have seen some interesting cotton samples from there."

*SCIENTIFIC STAFF OF THE OFFICE OF FOREIGN SEED AND
PLANT INTRODUCTION OF THE BUREAU OF PLANT INDUSTRY.*

Washington Staff.

David Fairchild, Agricultural Explorer in charge.
P. H. Dorsett, Plant Introducer in charge of Plant Introduction
Field Stations.
Peter Bisset, Plant Introducer in charge of Foreign Plant
Distribution.
Frank N. Meyer and Wilson Popenoe, Agricultural Explorers.
H. C. Skeels, Botanical Assistant, in charge of Seed Collections.
S. C. Stuntz, Botanical Assistant, in charge of Explorers' Notes,
Foreign Correspondence and Publications.
R. A. Young, Botanical Assistant, in charge of Dasheen Investi-
gations.
Allen M. Groves, Nathan Menderson, and G. P. Van Eseltine, As-
sistants.

Staff of Field Stations.

R. L. Beagles, Assistant Farm Superintendent in charge of Chico,
Calif., Plant Introduction Field Station.
H. Klopfer, Plant Propagator.
J. M. Rankin, Assistant Farm Superintendent in charge of Rock-
ville Md., (Yarrow) Plant Introduction Field Station.
Edward Goucher, Propagator.
Edward Simmonds, Gardener and Field Station Superintendent in
charge of Miami, Fla., Plant Introduction Field Station.
E. R. Johnston, Assistant in charge of Brooksville, Fla., Plant
Introduction Field Station.

Collaborators.

Mr. Aaron Aaronsohn, Haifa, Palestine.
Mr. Thomas W. Brown, Cairo, Egypt.
Dr. Gustav Eisen, California Academy of Sciences, San Francisco,
Calif.
Mr. E. C. Green, Serviço do Algodao no Brazil, Rio de Janeiro,
Brazil.
Mr. A. C. Hartless, Saharanpur, India.
Mr. Barbour Lathrop, Chicago, Ill.
Mr. William S. Lyon, Manila, Philippine Islands.
Miss Eliza R. Scidmore, Yokohama, Japan.
Mr. Charles Simpson, Little River, Fla.
Dr. L. Trabut, Director, Service Botanique, Algiers, Algeria.
Mr. E. H. Wilson, Arnold Arboretum, Jamaica Plain, Mass.

Issued July 21, 1915.